



6063 / 6061 Standard Aluminum Extrusion Profiles Anodizing / Electrophoresis

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: HENTEC
- Certification: CA ,CE
- Minimum Order Quantity: 1 ton
- Packaging Details: Ep paper ,kraft ,pallet
- Delivery Time: 20days
- Payment Terms: T/T ,L/C
- Supply Ability: 100 000ton each month



Product Specification

- Product Name: Aluminum Extrusion Rectangular Tube
- Alloy: 6063,6061,6005
- Material: Aluminum
- Surface Treatment: Mill Finished,Anodized, etc
- Temper: T4, T5, T6 ,T66
- Application: Buildings,commercial,industrial
- Highlight: extruded aluminum shapes,
aluminium profile extrusion



Product Description

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Our 4500T grade extrusion machine enable us to produce any section within 400*150mm and $\phi 360$. Your drawings are definitely welcomed.

Price indication: basic aluminium ingot, extrusion cost, surfacing cost and extra.

We also supply fully assembled premium grade window&door systems.

Information:

1. Material: Aluminium alloy 6063, 6061.
 2. Temper: T5, T6.
 3. Quality standard: DIN; AAMA; AS/NZS; CHINAGB.
 4. Surface treatment: Mill finish, anodized, powder coated, wood grain, polished, brushed, electrophoresis, etc.
 5. Color available: Anyone is available based on your color samples.
 6. Packing details: Shrinking film; Plastic & kraft paper; Wooden pallet
- Carton packing; By customer's requirements.

Description:

Item	Construction Aluminum Profile
Material	Alloy 6063, 6061 or according to customer' s choice
Temper	T3, T4, T5, T6
Surface	Anodize (clear, satin, bronze, black, golden, silver, other multicolor) , electrophoresis, powder coating, PVDF coating, wood grain painting, etc.
MOQ	1 ton. Usually 12 tons for a 20 feet container; 24 tons for a 40 feet container.
Profile type	Industry Aluminum profile used in cars, trains machinery ,trailers ,electronics, medical and other industrial filed .
Machining	1. milling; 2. Drilling; 3. Bending; 4. Cutting ...
Moulding	1. Using our moulds, free; 2. Using customer' s drawing, opening mould fee need to be paid .
Certificate	ISO14001:2004, ISO9001:2000
FOB Port	Shanghai, etc.

Applications:

Industry Aluminum profile used in cars, trains machinery ,electronics, medical and other industrial filed . In terms of hardware, machinery, electromechanical parts, solar PV products, aluminum frames are adopt as important auxiliary materials. We also have aluminum profiles for radiators, fitness machinery, buildings, lighting instrument, windpipes, oil pipelines, for instance.

Specifications:

1) Chemical composition

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Impurity	Al
6063	0.2-0.6	0.35	0.1	0.1	0.45-0.9	0.1	0.1	0.1	0.15	Rest
6061	0.4-0.8	0.7	0.15-0.4	0.15	0.8-1.2	0.04-0.35	0.25	0.15	0.15	Rest
6060	0.3-0.6	0.1-0.3	0.1	0.1	0.35-0.6	-	0.15	0.1	0.15	Rest
6005	0.6-0.9	0.35	0.1	0.1	0.40-0.6	0.1	0.1	0.1	0.15	Rest

2) Mechanical property

Alloy	Temper	Tensile strength	Yield strength	Elongation
6063	T5	$\geq 160\text{Mpa}$	$\geq 110\text{Mpa}$	$\geq 8\%$
	T6	$\geq 205\text{Mpa}$	$\geq 180\text{Mpa}$	$\geq 8\%$
6061	T6	$\geq 265\text{Mpa}$	$\geq 245\text{Mpa}$	$\geq 8\%$

Competitive Advantage:

- 1) Engineering design and support.
- 2) Aluminium profiles deeply processing:cutting,punching,drilling,milling,and fabricating.
- 3) High Quality system, strictly inspection during production and whole inspection before package.
- 4) Good performance, product warranty for 15 years.



Aluminum profile production process:

It mainly includes three processes of casting, extrusion and coloring (coloring mainly includes: oxidation, electrophoretic coating, fluorocarbon coating, powder coating, wood grain transfer, etc.).

1. Melting and casting is the first process of aluminum production.

The main process is:

- (1) Ingredients: Calculate the amount of various alloy components according to the specific alloy grades that need to be produced, and reasonably match various raw materials.
- (2) Smelting: The prepared raw materials are added to the melting furnace for melting according to the process requirements, and the impurities and gases in the melt are effectively removed by degassing and slag refining means.
- (3) Casting: The molten aluminum liquid is cooled and cast into various round casting rods under a certain casting process condition through a deep well casting system.

2. Extrusion:

Extrusion is the means of profile forming. Firstly, the mold is designed and manufactured according to the section of the profile product, and the heated round cast rod is extruded from the mold by an extruder. The commonly used grade 6063 alloy is also subjected to an air-cooling quenching process and an artificial aging process after extrusion to complete the heat treatment strengthening. Different grades of heat treatable reinforced alloys have different heat treatment regimes.

3. Coloring (here mainly on the oxidation process)

Oxidation: The extruded aluminum alloy profile has a low surface corrosion resistance and must be surface treated by anodizing to increase the corrosion resistance, wear resistance and appearance of the aluminum.

The main process is:

- (1) Surface pretreatment: The surface of the profile is cleaned by chemical or physical means to expose a pure substrate to facilitate the obtaining of a complete and dense artificial oxide film. It is also possible to obtain a specular or matt (matte) surface by mechanical means.
- (2) Anodizing: After surface pretreatment, under certain process conditions, the surface of the substrate is anodized to form a dense, porous, strong adsorption film.
- (3) Sealing: The pores of the pores of the porous oxide film formed by anodization are closed, so that the oxide film is prevented from being contaminated, and the corrosion resistance and wear resistance are enhanced. The oxide film is colorless and transparent. By using the strong adsorption property of the oxide film before sealing, some metal salts are adsorbed and deposited in the pores of the film, so that the appearance of the profile shows many colors other than the natural color (silver white), such as black, bronze, Gold and stainless steel.